



Bureau of Water
October 19, 2016

CERTIFIED MAIL 9214 8969 0099 9790 1406 3646 87
RETURN RECEIPT REQUESTED

Carolina Water Service, Inc.
Attn: Bob Gilroy, Vice President of Operations
150 Foster Brothers Drive
West Columbia, SC 29172

RE: **Corrective Action Plan**
Consent Order No. 16-050-DW
Carolina Water Service, Inc.
CWS I-20
Public Water System No. 3250012 (PWS)
Lexington County

Dear Mr. Gilroy:

On October 11, 2016, the South Carolina Department of Health and Environmental Control (Department) received the corrective action plan (CAP) submitted by Carolina Water Service, Inc. (Owner) as required per Consent Order No. 16-050-DW (Order) to address the maximum contaminant level (MCL) violations for haloacetic acids five (HAA5) that have occurred at the DBP-21 129 Mossborough Drive monitoring location at the PWS.

The CAP stated that, on August 2, 2016, the Owner had a meeting with the City of West Columbia, which provides drinking water to the Owner, to discuss what steps were being taken to address the elevated HAA5 levels. During the meeting, it was discussed that the City of West Columbia relocated the chlorine injection point at the Lake Murray Water Treatment Plant (LMWTP) so that the majority of the organic compounds in the water are removed prior to the chlorine injection point. Following the implementation of the corrective action, disinfection byproduct monitoring conducted by the City of West Columbia and the Department showed reduced HAA5 levels for water leaving the LMWTP and water in the distribution system.

This letter serves as notice that the Department has reviewed and approved the CAP that has been implemented. Please be aware that, if any samples collected for any one (1) quarterly monitoring period result in levels above the MCL for HAA5, a revised CAP and schedule of implementation and completion shall be submitted to the Department for approval within thirty (30) days of the date of notification by the Department. Consent Order No. 16-050-DW shall remain open until a CAP that has been approved by the Department is completed and compliance is achieved and maintained for a period of at least twelve (12) months following the completion of the approved CAP.

This letter does not constitute a permit to construct or an approval to operate, which must be obtained from the Department prior to any public water system modification, construction and

operation.

All correspondence related to this letter should be submitted to the Department to my attention at the following address:

S.C. Department of Health and Environmental Control
Bureau of Water - Drinking Water Protection Division
Drinking Water Enforcement Section
2600 Bull Street
Columbia, S.C. 29201

If you have any questions concerning the requirements of this letter, please contact me by e-mail at windhaeh@dhec.sc.gov or by telephone at (803) 898-4459.

Sincerely,



Emma H. Windham
Drinking Water Enforcement Section

Enclosures: CAP

cc: Leslie Owens, Drinking Water Compliance Monitoring Section
Lindsey Bounds, Drinking Water Compliance and Permitting Section
Midlands BEHS Columbia office



October 10, 2016

Ms. Emma Windham
Drinking Water Enforcement Section
Bureau of Water
SC DHEC
2600 Bull Street
Columbia, SC 29201

Re: Consent Order 16-050-DW
CWS Inc. / I-20
Public Water System No. 3250012
Lexington County

Dear Ms. Windham:

Pursuant to the Department's Consent Order 16-049-DW, Carolina Water Service, Inc. (CWS) is submitting the following proposed Corrective Action Plan (CAP) for the CWS / I-20 water system.

On June 29, 2016, the Department issued an NOV to CWS when previous tests determined that water samples from the I-20 water distribution system had exceeded the OEL for HAA5 during the October 2015 – June 2016 compliance period and had exceeded the MCL for HAA5 during the July 2015 – June 2016 compliance period at the DBP-21 129 Mossborough Drive monitoring location. The NOV also notified CWS that it must submit an operational evaluation report to the Department within ninety days of receipt of the NOV; and, as a result of the MCL violation, CWS must provide public notice to customers of the PWS within thirty days of the receipt of the NOV, and submit to the Department a copy of the public notice provided within ten days of issuance.

On August 15, 2016, the Department was provided with a copy of the public notice that was issued to the customers of the I-20 water system due to the MCL violation for HAA5 during the July 2015- June 2016 compliance period. (attached)

On August 26, 2016, CWS provided a copy of the Operational Evaluation Report to the Department. (attached)

CWS's operational responsibility is restricted to the distribution of finished water to its customers within its system, as we purchase our finished water supply from the City of West Columbia Lake Murray treatment facility through their distribution system. For this reason, we do not have control of the treatment processes required to correct non-compliant finished water which originates from the West Columbia water treatment facility.

CWS's corrective actions, which have already been completed, include contacting and personally meeting with officials of the City of West Columbia in order to express our concern and to gain assurances that the treatment process problem which led to the HAA5 violation results was corrected and in a way that would ensure the treatment process would prohibit a repeat of the violations.

Rick Durham, President of Carolina Water Service, Inc., and I, met with the City of West Columbia City Administrator, Brian Carter, on August 2, 2016 to discuss corrections the city had completed regarding the preliminary disinfection process at their Lake Murray water treatment facility. CWS sought and received assurances at this meeting and in a follow-up letter (attached) that the City had identified the problem and had made the necessary corrections to ensure that they were producing and selling compliant and safe water to its customers, including the consecutive public water systems which receive their water supply from the West Columbia treatment facility, of which CWS / I-20 is one.

Along with the letter from the City Administrator, assuring CWS that the problem was identified and corrected, is a document from West Columbia showing compliant finished water quality samples after their corrective actions were completed. (attached)

a Utilities, Inc. company Carolina Water Service, Inc.

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CWS will continue to work closely with the City of West Columbia, which provides the treatment for the finished water supply end users in order to assure that we are providing water that meets all DHEC standards for safe drinking water.

Should you have any questions or comments please feel free to contact me at (803) 753-1150.

Sincerely,
CAROLINA WATER SERVICE, INC.

A handwritten signature in blue ink, appearing to read "Bob Gilroy", is written over the printed name.

Bob Gilroy
Vice President of Operations

Cc: Rick Durham, President
Mac Mitchell, Regional Manager
Scotty Haws, CWS / Regional Compliance Manager

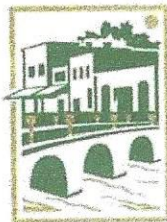
BOBBY E. HORTON
Mayor

L. DALE HARLEY
Mayor Pro-Tem

BRIAN E. CARTER, AICP
City Administrator

KELLI D. RICARD
City Clerk

JUSTIN R. BLACK, CPA
City Treasurer



City of West Columbia
Bridging Past, Present and Future

R. TREVOR BEDELL

JIMMY BROOKS

CASEY JORDAN HALLMAN

BOYD J. JONES

TEMUS C. "TEM" MILES

TOMMY G. PARLER

TEDDY WINGARD

Council Members

August 5, 2016

Mr. Richard J. Durham P.E., President
UI – South Carolina
150 Foster Brothers Drive
West Columbia, SC 29172

Re: Information related to exceedance of the maximum levels of HAA5

Dear Mr. Durham:

On June 28, 2016, the City of West Columbia (the "City") received a single notice of violation of state drinking water standard R.61-58.5.P. The amount of the exceedance was 0.061 mg/L against a standard of 0.060 mg/L.

I want to inform you that the City has cured its current problems related to disinfection byproducts. In early July, the City obtained DHEC approval to move the location of its chlorine injection point on the water system to a point that is after the majority of organic compounds have been removed from the water being treated. As the attached documentation reflects, this modification has reduced the disinfection byproducts to levels that are far below the relevant maximum levels under the drinking water standards. As a result, the current issues related to disinfection byproducts have been resolved.

In addition, as previously mentioned, the City's engineering firm is finalizing a master plan for the Lake Murray Water Treatment Plant that has been in process since the beginning of the year. A key component of that plan is an evaluation of issues related to disinfection and disinfection byproducts. The plan will evaluate what additional steps may be helpful going forward.

Thank you for your attention to this matter. The City appreciates working with Utilities, Inc. and very much values you as a purchaser. If you have questions or concerns about the matters discussed here, please feel free to call on me.

Respectfully,

A handwritten signature in blue ink, appearing to read "Brian E. Carter".

Brian E. Carter, AICP
City Administrator
City of West Columbia, South Carolina

SUMMER 2016 PLANT 2 - HAA TESTING RESULTS SUMMARY

DATE	Day	HAA TEST RESULTS			Running Average	HAA MCL
		SETTLED	FILTERED	FINISH		
7/6/2016	Wed.	47	---	55	55	60
7/8/2016	Fri.	43	---	54	55	60
7/9/2016	Sat.	46	---	48	52	60
7/10/2016	Sun.	43	---	62	55	60
7/11/2016	Mon.	41	---	51	54	60
7/12/2016	Tues.	65	---	63	56	60
7/13/2016	Wed.	23	---	56	56	60
7/14/2016	Thur.	0	27	30	52	60
7/15/2016	Fri.	1	20	23	48	60
7/16/2016	Sat.	0	21	22	44	60
7/17/2016	Sun.	0	18	25	39	60
7/18/2016	Mon.	0	21	22	34	60
7/19/2016	Tues.	0	22	25	29	60
7/20/2016	Wed.	0	19	22	24	60
7/21/2016	Thurs.	0	21	23	23	60
7/22/2016	Fri.	0	20	25	23	60
7/23/2016	Sat.	---	19	28	24	60
7/24/2016	Sun.	---	22	25	24	60
7/25/2016	Mon.	---	16	22	24	60
7/26/2016	Tues.	---	17	19	23	60
7/27/2016	Wed.	---	20	22	23	60
7/28/2016	Thurs.	---	24	24	24	60
7/29/2016	Fri.	---	21	25	24	60
7/30/2016	Sat.	---	21	23	23	60
7/31/2016	Sun.	---	16	23	23	60
8/1/2016	Mon.	---	20	19	22	60

